City of Roseau Storm Sewer Reconstruction

Proposer: City of Roseau



Description/Purpose:

In the summer of 2019, a rain event occurred in the City of Roseau creating significant flooding of Polaris' manufacturing facility, resulting in a 24-hour shutdown of the plant and the loss of several hundred thousand dollars of revenue. Unfortunately, this type of flood event is becoming a common occurrence in this area of Roseau, due to more intense rainstorms. In the past five years, similar rainfall events have occurred three other times pointing to the increasing frequency of intense rainfall events from a changing climate. In addition to the Polaris Facility, flooding impacts a low-income housing area, numerous streets, parking lots, and other businesses. It should be noted that minor flooding of the low-income housing area occurs nearly annually. Outdated rainfall design data, which was used to design the current storm sewer pipe sizes, has created these flooding problems. MnDOT has programmed reconstruction of Hwy 89 through the city for the 2027 construction season. However, storm sewer capacity improvements are required to accommodate and protect the proposed highway investment. The city is responsible for all necessary storm sewer improvements, and if these improvements are not made, the project will not proceed. The solution to eliminate the current flooding conditions is to upsize the storm sewer system serving the west side of the City to be resilient during these more frequent heavy rain events. This project proposes to replace 5,000 lineal feet of existing storm sewer pipe with an appropriately sized system designed to accommodate projected storm events, thereby eliminating the current flooding issues. Reconstruction of the storm sewer provides necessary improvements needed for the Hwy 89 project to proceed, while also eliminating the current flood risk to the low-income housing community, Polaris facility, adjacent streets, parking areas, and local businesses.

Project Benefits

Provides a resilient infrastructure solution to the increased climate-induced flooding of a low-income housing community, Polaris' manufacturing facility, local businesses, streets, and city infrastructure; also provides the ability to proceed with the MN Hwy 89 reconstruction project that significantly improves safety and mobility for pedestrian, bicyclist, motor vehicle and trucking operations in Roseau.

Status: Currently in Preliminary Design Phase, Construction Ready in Fall of 2023.

Project Total Cost \$4.83 Million

Engr/Proj Dev Costs = \$50,000 CM costs = \$80,000 Capital Cost of project = \$4,700,000

Funding Request

Federal Funds = \$2,415,000 **State FDR Funds = \$1,915,000** City of Roseau = \$500,000

Photo 1: 2019 flooding of Polaris operating floor



Photo 2: 2019 flooding of businesses along TH 89 due to inadequately sized storm sewer

